

APPENDIX B – ALL PENDING CLAIMS

WE CLAIM:

1. (twice amended) A method of preparing 2-methyl-4-(4-methyl-1-piperazinyl)-10H-thieno[2,3-b][1,5]-benzodiazepine comprising the following steps:

- A) preparing 2-amino-5-methylthiophene-3-carbonitrile by mixing sulfur, [propional-dehyde] propionaldehyde in dimethylformamide, then adding triethyl amine, then adding malononitrile;
- B) preparing 2-(2-nitroanilino)-5-methylthiophene-3-carbonitrile from the reaction product of step (A) by reaction with a slurry of sodium hydride dispersed in oil in tetrahydrofuran and [2-fluoro-nitrobenze] 2-fluoronitrobenzene;
- C) preparing 4-amino-2-methyl-10H-[thiono]~~thieno~~[2,3-b][1,5]benzodiazepine hydrochloride from the reaction product of step (B) by reacting with a slurry of 2-(2-nitroanilino)-5-methyl-thiophene-3-carbonitrile in ethanol and a solution of anhydrous stannous chloride in hydrochloric acid;
- D) preparing 2-methyl-4-(4-methyl-1-piperazinyl)-10H-thieno[2,3-b][1,5]benzodiazepine by refluxing the reaction product of step (C) with a mixture of N-methylpiperazine, dimethylsulphoxide and toluene.

2. (canceled)

3. (canceled)

4. (canceled)

5. (canceled)

6. (canceled)

7. (canceled)

8. (canceled)

9. (canceled)

10. (canceled)

11. (canceled)

12. (canceled)

- 13. (canceled)
- 14. (withdrawn)
- 15. (withdrawn)
- 16. (withdrawn)
- 17. (withdrawn)
- 18. (withdrawn)
- 19. (withdrawn)
- 20. (withdrawn)
- 21. (withdrawn)
- 22. (withdrawn)
- 23. (withdrawn)
- 24. (withdrawn)

25. (new) A method of preparing 2-methyl-4-(4-methyl-1-piperazinyl)-10H-thieno[2,3-b][1,5]benzodiazepine comprising the following steps:

- A) preparing 2-amino-5-methylthiophene-3-carbonitrile by mixing sulfur, propionaldehyde in dimethylformamide, then adding triethyl amine, then adding malononitrile;
- B) preparing 2-(2-nitroanilino)-5-methylthiophene-3-carbonitrile from the reaction product of step (A) by reaction with potassium carbonate or lithium hydroxide in dimethylsulphoxide and 2-fluoronitrobenzene;
- C) preparing 4-amino-2-methyl-10H-thienof[2,3-b][1,5]benzodiazepine hydrochloride from the reaction product of step (B) by reacting with a slurry of 2-(2-nitroanilino)-5-methyl-thiophene-3-carbonitrile in ethanol and a solution of anhydrous stannous chloride in hydrochloric acid;
- D) preparing 2-methyl-4-(4-methyl-1-piperazinyl)-10H-thienof[2,3-b][1,5]benzodiazepine by refluxing the reaction product of step (C) with a mixture of N-methylpiperazine, dimethylsulphoxide and toluene.

26. (new) A method of preparing 2-methyl-4-(4-methyl-1-piperazinyl)-10H-thieno[2,3-b][1,5]-benzodiazepine comprising the following steps:

- A) preparing 2-amino-5-methylthiophene-3-carbonitrile by mixing sulfur, propionaldehyde in dimethylformamide, then adding triethyl amine, then adding malononitrile;
- B) preparing 2-(2-nitroanilino)-5-methylthiophene-3-carbonitrile from the reaction product of step (A) by reaction with aqueous sodium hydroxide in dimethylsulphoxide and 2-fluoronitrobenzene;
- C) preparing 4-amino-2-methyl-10H-thieno[2,3-b][1,5]benzodiazepine hydrochloride from the reaction product of step (B) by reacting with a slurry of 2-(2-nitroanilino)-5-methyl-thiophene-3-carbonitrile in ethanol and a solution of anhydrous stannous chloride in hydrochloric acid;
- D) preparing 2-methyl-4-(4-methyl-1-piperazinyl)-10H-thieno[2,3-b][1,5]benzodiazepine by refluxing the reaction product of step (C) with a mixture of N-methylpiperazine, dimethylsulphoxide and toluene.